

XX. *Further notes on the synonymy of the genera of Noctuities.* By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

[Read September 3rd, 1890.]

To some of the groups already treated of, I have a few additional notes to record; I shall therefore take them in the order in which they now stand in the Museum cabinets.

CYMATOPHORIDÆ.

PROMETOPUS, Guén.

1. *Prometopus inassueta*.

Prometopus inassueta, Guenée, Noct., i., p. 38, n. 42 (1852).

Bryophila dorsivaria, Walk., Lep. Het., 15, p. 1648 (1858).

Australia and Tasmania.

M. Guenée placed this genus in his heterogeneous family *Bombycoideæ*; it is, however, allied to *Cymatophora*.

NOCTUIDÆ.

OCHROPLEURA, Hübn.

In the Grote collection I found an example of *O. plecta*, which is labelled, probably in error, "*Valeria grotei*, Morr."

It is a very remarkable thing that *Ochropleura*, a genus founded by one of Mr. Scudder's favourite authors, is amongst the many lepidopterous genera omitted from the 'Nomenclator Zoologicus.'

MENTAXYA, Hübn.*

Eugrapha, Hübner = *Ariathisa*, Walk.

1. *Mentaxya amatura*.

Agrotis amatura, Walker, Lep. Het., 15, p. 1700 (1858).

* This genus is extremely close to *Anicla*, Grote, which may have to be amalgamated with it.

Port Natal.

This species, in the Zeller collection, is labelled "*Agrotis trisema*, Z.," but I do not know whether he described it. Walker incorrectly associated two examples with two of an apparently unnamed species as *A. albifrons*, Hübn., which, however, is distinct.

21 *Mentaxya rimosa*.

Agrotis rimosa, Guenée, Noct., i., p. 277, n. 446 (1852).

A. varia, Walker, Lep. Het., Suppl., 2, p. 694 (1865).

Cape of Good Hope.

3. *Mentaxya muscosa*.

Mentaxya muscosa, Hübner, Zutr. Exot. Schmett., 10, 414, figs. 827, 828.

Diphthera cumulata, Walker, Lep. Het., Suppl., 2, p. 613 (1865).

Cape Town.

4. *Mentaxya furcifera*.

Agrotis furcifera. Walker, Lep. Het., 15, p. 1699 (1858).

United States.

This is *A. brocha*, Morrison. I do not know which name has priority.

ANICLA, Grote.

1. *Anicla incivis*.

Agrotis incivis, Guenée, Noct., i., p. 274, n. 441 (1852).

United States to Brazil.

This is proved, by a comparison of the type-specimens, to be *A. alabamæ*, Grote. *Prodenia pauper*, Butl., described from a female received from Jamaica, is only a dwarfed form of the same species.

2. *Anicla ignicans*.

Agrotis ignicans, Guenée, Noct., i., p. 274, n. 440 (1852).

A. prodenoides, Walker, Lep. Het., 10, p. 354, n. 113 (1856).

S. America generally.

In the species of *Anicla* the secondaries are white, as in most of the species of *Mentaxya*, but they are more opaline and less thickly scaled.

XYLOPHASIA, Stephens.

I am unable to see any reason for ignoring this very natural group of moths, the bulk of which can be distinguished at a glance by the character of their markings; they doubtless only form a subgroup of *Mamestra*, so far as structure goes, but it is convenient to keep them separate.

1. *Xylophasia rurea*.

Noctua rurea, Fabricius, Sp. Ins., ii., p. 240.

Europe and United States.

I can discover no characters by which to distinguish *X. vultuosa*, Grote, from this species.

2. *Xylophasia lignicolora*.

Xylophasia lignicolora, Guenée, Noct., i., p. 140, n. 221 (1852).

United States.

X. quærita, Grote, only differs from *X. lignicolora* in its slightly paler colouring, and *X. auranticolor* only appears to be a darker form of the same.

3. *Xylophasia cariosa*.

♀, *Xylophasia cariosa*, Guenée, Noct., i., p. 144, n. 232 (1852).

United States.

Hadena idonea of Grote is the male of this species; the females labelled *H. cariosa* in the Grote collection do not agree with Guenée's type, and, in my opinion, represent a distinct and altogether a finer species.

It seems to be generally supposed, in the States, that the whole of M. Guenée's types are in the possession of M. Oberthür. An examination of the descriptions in the three volumes of the 'Noctuélites,' or, indeed, of any of the volumes of the 'Histoire Naturelle' (Lépidoptères) will show that nearly the whole of the N. American species were described from specimens lent to the author

by Mr. Doubleday, and many of the East Indian species from specimens in the Museum of the E. I. Company. All these types, labelled by Guenée himself, are in the British Museum collection.

ALIBAMA, *Moeschl.*

1. *Alibama punctirena*.

Hadena punctirena, Walker, Lep. Het., xi., p. 586, n. 64 (1857).

H. terens, Walker, *l. c.*, n. 65 (1857).

St. Domingo, Venezuela, Guadaloupe. Coll. B. M.

This species appears to me to be better placed next to *Dipterygia* than elsewhere.

AXYLIA, *Hübner*.

1. *Axylia eridania*.

Phalæna eridania, Cramer, Pap. Exot., iv., p. cxxxiii., fig. F (1882).

Leucania externa, Walker, Lep. Het., 9, p. 114, n. 85 (1856).

Prodenia strigifera, Walker, *l. c.*, 15, p. 1678 (1858).

South America.

The species regarded as the male by Cramer must bear the name.

ANTACHARA, *Walk.*

Barely separable from the preceding genus. Associated with *Xylophasia* by M. Guenée.

1. *Antachara diminuta*.

Xylophasia diminuta, Guenée, Noct., i., p. 141, n. 223 (1852).

Antachara rotundata, Walker, Lep. Het., 15, p. 1741, n. 1 (1858).

Laphygma lignigera, Walker, *l. c.*, Suppl., 2, p. 650 (1865).

Brazil.

X. denterna of Guenée is a species of this group: we have it from Rio Janeiro.

2. *Antachara phytolacæ*.

Phalæna phytolacæ, Smith Abbot, Lep. Ins. Georgia, ii., p. 193, pl. 97.

Xylina iniquita, Walker, Lep. Het., xi., p. 632, n. 22 (1857).

Prodenia ignobilis, Butler, Proc. Zool. Soc., 1878, p. 485.

North and South America.

This species varies in tint and in the prominence or the reverse of the black stigma at the end of the cell of primaries.

3. *Antachara albula*.

Xylina albula, Walker, Lep. Het., xi., p. 629, n. 16 (1857).

Laphygma orbicularis, Walker, l. c., p. 719.

St. Domingo, Honduras, Callao.

Allied to the preceding, though clearly a distinct species.

MORRISONIA, Grote.

1. *Morrisonia ewingii*.

Noctua (Xylophasia?) ewingii, Westwood, Proc. Ent. Soc. Lond., ii., p. lv., pl. xx., fig. 1 (1837).

Cloantha composita, Guenée, Noct., ii., p. 114, n. 832 (1852).

Leucania dentigera, Butler, Cist. Ent., ii., p. 542 (1880).
Australia, Tasmania, New Zealand, United States.

The last-mentioned locality is based upon a specimen in the Grote collection, undoubtedly of this species, labelled "*Morrisonia peracuta*, Morr." The species will probably be found to have a far wider geographical range than has been supposed: Walker made the astonishing blunder of identifying it with *Drymonia dimidiata*, H.-Sch.

AUCHMIS, Guén.

1. *Auchmis intermedia*.

Cloantha intermedia, Bremer, Lep. Ost.-Sibiriens, p. 53, tab. v., fig. 13 (1864).

Auchmis sikkimensis, Moore, Proc. Zool. Soc., 1867, p. 49, pl. vi., fig. 15.

India, Japan, South Africa.

LEUCANIA, Ochs.

1. *Leucania l-album*.

Phalæna-Noctua l-album, Linnæus, Syst. Nat., xii.,
p. 850.

Leucania bistrigata, Moore, Proc. Zool. Soc., 1881,
p. 334.

L. penicillata, Moore, l. c., p. 335.

Europe and India.

I have elsewhere pointed out that the slight characters on which the Indian species were based are very inconstant.

With *L. insueta* of Guenée, Walker associated four specimens of *L. adonca*.

2. *Leucania albilinea*.

Leucania albilinea, Hübner, Zutr. Exot. Schmett.,
p. 25, n. 169, figs. 337, 338.

L. diffusa, Walker, Lep. Het., ix., p. 94, n. 35 (1856).

L. moderata, Walker, l. c., p. 114, n. 86 (1856).

Heliophila harveyi, Grote (see Check List, p. 30, n. 619).

Leucania chilensis, Butler, Trans. Ent. Soc. Lond.,
1882, p. 115, n. 4.

North and South America.

3. *Leucania humidicola*.

Leucania humidicola, Guenée, Noct., i., p. 90, n. 137
(1852).

L. extenuata, Guenée, l. c., n. 138.

L. dorsalis, Walker, Lep. Het., ix., p. 98, n. 43 (1856).

S. America.

L. humidicola is slightly paler than *L. extenuata*, but is undoubtedly the same species.

4. *Leucania loreyi*.

Leucania loreyi, Duponchel, Lep. France, vii., 1, p. 81 ;
pl. 105, fig. 7 (1827).

L. collecta, Walker, Lep. Het., ix., p. 105, n. 63 (1856).

L. thoracica, Walker, l. c., p. 106, n. 68 (1856).

L. denotata, Walker, l. c., p. 107, n. 70 (1856).

Europe, Japan, India.

5. *Leucania percussa*.

Leucania percussa, Butler, Proc. Zool. Soc., 1880,
p. 674, n. 55.

L. insularis, Butler, *l. c.*, n. 56.

Formosa.

I believe these two must be slightly different forms of the same species; in any case *L. insularis* is much rubbed, and ought not to have been described.

6. *Leucania multilinea*.

Leucania multilinea, Walker, Lep. Het., ix., p. 97,
n. 41 (1856).

Canada.

This is the species described by Grote as *L. lapidaria*, Grote: it is quite distinct from *L. commoides*, under which Grote gives "*L. multilinea*, Walk., *in litt.*," as a synonym.

7. *Leucania phragmitidicola*.

Leucania phragmitidicola, Guenée, Noct., i., p. 89,
n. 136 (1852).

United States.

This species is quite distinct from the Haytian insect, identified with it by Walker, being very closely allied to the preceding, *L. multilinea*: it was correctly identified by Grote.

8. *Leucania amens*.

Leucania amens, Guenée, Noct., i., p. 88, n. 133 (1852).

South Africa.

Probably only a pale form (the prevalent one) of *L. torrentium*, Guén.; the differences are slight, all the markings being alike.

9. *Leucania exterior*.

Leucania exterior, Walker, Lep. Het., ix., p. 106, n. 66
(1856).

L. designata, Walker, *l. c.*, p. 107, n. 69 (1856).

India.

Both of the types are now in the Museum Collection, and prove to be inseparable as species.

"*Leucania*" *disjuncta*, Walker, is an *Agrotis*; *L. propria* and *L. semivittata* must be transferred to *Ommatostola*.

10. *Leucania extincta*.

Leucania extincta, Guenée, Noct., i., p. 79, n. 107 (1852).

United States.

This is proved, by a comparison of the types, to be the *Heliophila ligata* of Grote.

11. *Leucania insucta*.

Leucania insucta, Guenée, Noct., i., p. 81, n. 113 (1852).

United States.

Allied to *L. comma*. The type only differs from that of *L. adonea*, Grote, in the less distinctly whitish costal border and veins of primaries: it is quite possible that they may prove to be forms of the same species, but I would always rather err on the side of allowing too many species to stand rather than too few; it is always easy to put things together, but it often requires careful study to discriminate between closely-allied species.

12. *Leucania linita*.

Leucania linita, Guenée, Noct., i., p. 81, n. 114 (1852).

L. insecuta, Walker, Lep. Het., Suppl., 2, p. 625 (1865).

L. intermissa, Walker, l. c., p. 626.

United States and Shanghai.

This is also identical with *L. amygdalina*, Harvey. The Shanghai specimens are indistinguishable from the American. I have already pointed out (Trans. Ent. Soc. Lond., 1882, p. 113) that *L. decolorata* of Blanchard is only a pale form of *L. impuncta*, Guén.

"*L. pallens*" of the United States agrees absolutely with the European *L. straminea*. The two forms have practically the same characters, and if received from any extra-European locality would never have been considered distinct; indeed, it is possible to find examples which cannot with certainty be referred to one form

rather than the other. *L. straminea* differs chiefly in the generally more prominent pale longitudinal streak above the median vein of the primaries, and the better-defined black or dark markings. Not having bred both from the egg, I keep them separate in the collection.

The *L. juncicola* of Walker is not the species so named by M. Guenée, but is the *L. ajusta* of Grote. The true *L. juncicola* seems to be very closely allied to, if distinct from, *L. scirpicola*.

In the Index to 'Illustrations of Typical Lepidoptera-Heterocera,' I inadvertently placed *L. griseifascia*, Moore, as a synonym of *L. commoides*; it really is a dark form of *L. percisa* (Proc. Zool. Soc., 1888, p. 410).

The following is a very variable species, which has received many names:—

13. *Leucania unipuncta*.

Noctua unipuncta, Haworth, Lep. Brit., p. 174, n. 37 (1810).

Typical form. United States, Chili, New Zealand, Azores. Coll. B. M.

This is a large reddish form of the species in which the white dot on the primaries is very prominent. I have seen no undoubted European examples of the species, and the few specimens which may have been obtained were probably accidentally imported.

Var. *saccharivora*.

Leucania saccharivora, Butler, Trans. Ent. Soc. Lond., 1882, p. 115.

Chili, India, and New Zealand. Coll. B. M.

Smaller than the typical form, and of a brighter reddish colour; the white spot obsolete.

Var. *antica*.

Leucania antica, Walker, Lep. Het., ix., p. 100, n. 52 (1852).

L. ajusta, Moore, Proc. Zool. Soc., 1881, p. 335.

Western coast of America, Venezuela, Darjiling. Coll. B. M.

About the same size as the preceding variety, but much paler, the primaries being pale testaceous, with ill-defined dusky markings, and the secondaries almost white, with more or less defined dusky border, darkest towards apex. The Indian examples show the dusky border distinctly as a broad subapical patch, varying in intensity in different individuals; one of the examples from Venezuela has a similar though less prominent patch.

Var. *trifolii*.

Leucania trifolii, Butler, Trans. Ent. Soc. Lond., 1882, p. 114.

Sao Paulo, Chili, Canada, Japan, Java, N.W. India, New Zealand, and Flores. Coll. B. M.

Altogether a greyer form, with prominent pale discoidal spots, well-defined dark oblique apical streak, and dusky secondaries.

Var. *extranea*.

Leucania extranea, Guenée, Noct., i., p. 77, n. 104 (1852).

United States, "Europe," Darjiling, Azores, Flores. Coll. B. M.

A darker form than the preceding, and generally larger.

Var. *convecta*.

Leucania convecta, Walker, Lep. Het., xi., p. 711 (1857).

Moreton Bay. Coll. B. M.

The primaries almost uniformly greyish, with testaceous reflections; the white dot almost lost in a blackish spot at the end of the cell; the secondaries whitish, with dusky veins and border somewhat as in the darkest form of var. *antica*.

Var. *separata*.

Leucania separata, Walker, Lep. Het., Suppl., ii., p. 626 (1865).

Japan, Shanghai, N. W. India, Goya, Chili, Kansas. Coll. B. M.

Scarcely separable from the preceding; the specimens

have a washed-out, faded appearance; the primaries pale testaceous, with indistinct markings; the secondaries greyish white, with dusky veins and borders.

I have not the least doubt that the whole of the above forms are mere variations of one widely-distributed species; at the same time it is doubtful whether the whole of the forms occur together, as, in a long series, Mr. Edmonds only had the two varieties, *L. trifolii* and *saccharivora*, whilst the typical form, received subsequently from Talcahuano, is only like a duller, darker specimen of the latter variety: most of the varieties occur in N. Western India, but I have not seen typical *L. unipuncta*, var. *antica*, or var. *convecta* from there.

HYPHILARE, Hübn.

This is the *Mythimna* of Walker, slightly modified: it will include *H. albipuncta*, *lithargyria*, *rudis*, *albicosta*, *fraterna*, *rufipennis*, *placida*, *pseudargyria*, *singularis*, *formosana*, *turca*, *grandis* and *divergens*, and perhaps *obusta*.

1. *Hyphilare pseudargyria*.

Leucania pseudargyria, Guenée, Noct., i., p. 74, n. 94 (1852).

United States.

The type of this species agrees exactly with the var. *callida* of Grote: in the Grote collection this form is labelled "var. *obusta*, Guen.," but the type of "*Leucania obstusa*" is a very distinct species, having densely ciliated antennæ, and darker by far in colouring even than the European *H. turca*. I very much doubt whether it can be placed in the same genus.

SESAMIA, Guenée.

1. *Sesamia incerta*.

Leucania incerta, Walker, Lep. Het., ix., p. 103, n. 58 (1856).

Nonagria intestata, Walker, l. c., p. 130, n. 23 (1856).

South Africa (*Sir A. Smith*). Coll. B. M.

2. *Sesamia abdominalis*.

Nonagria abdominalis, Walker, Lep. Het., ix., p. 131, n. 24 (1856).

Mythimna robusta, Walker, l. c., xi., p. 710 (1857).

Australia. Coll. B. M.

3. *Sesamia ciliata*.

Leucania ciliata, Walker, Lep. Het., ix., p. 110, n. 77 (1856).

Tæniocampa assimilis, Walker, l. c., xv., p. 1708 (1858).

Leucania curta, Walker, l. c., Suppl., ii., p. 627 (1865).

Australia. Coll. B. M.

PLATYSENTA, Grote.

1. *Platysenta videns*.

Leucania videns, Guenée, Noct., i., p. 78, n. 106 (1852).

Nonagria? *indigens*, Walker, Lep. Het., xi., p. 713, n. 3 (1857).

Platysenta atriciliata, Grote (see Check List, p. 30).

United States. Coll. B. M.

The type from Florida is identical with the species subsequently described by Walker and Grote.

Nonagria irregularis, Walker, and *Leucania proscripta*, Walker, may be referred to this genus.

NONAGRIA, Ochs.

"*Nonagria*" *geminipuncta*, Hatchett (an example of which stood in Zeller's series of *N. nexa*), has simple antennæ, and is congeneric with *Oria* (*Tapinostola*) *fulva*.

OMMATOSTOLA, Grote.

I have been obliged to extend this genus to include the following, most of them hitherto having been placed under *Nonagria*:—*N. cannae*, *lutosa*, *sparganii*, *arundinis*, *polita* of Walker (Shanghai), *nexa*, *propria*, Wlk. (New Zealand), *photophila*, Butl. (Hawaiian Islands), *semivittata*, Wlk. (New Zealand). The antennæ of these species are of the same character as those of *O. lintneri*, being thicker and more densely ciliated than in the little dull-coloured species which remain in *Nonagria*, viz.:—*N. dissoluta*, Treit., *punctifinis*, Walk., and *neurica*, Hübn. The *Leucania sulcana* of Fereday, which vaguely resembles *O. semivittata*, appears to me to be an *Arsilonche*: it is a little more developed in every way than *A. albovenosa*, the palpi, antennæ, legs, and wings being all longer; the primaries are buff instead of greyish or whitish-brown, and the secondaries and abdomen are blackish instead of pure white; the pattern of the primaries, however, is almost identical.

ORTHODES, Guén.

I have already stated (Ann. and Mag. Nat. Hist., ser. 6, vol. vi., p. 96) that the type of this genus, *O. t-nigrum*, must be placed here, the whole of Guenée's other so-called *Orthodes* being referred to *Dyschorista*. *Orthodes* will now include *O. t-nigrum* from Brazil, and *O. exempta* (*Leucaia exempta*, Walk.) from Ceylon.

MYCTEROPLUS, Herr.-Sch.

Zotheca, Grote, is synonymous with this genus.

SPODOPTERA, Guén.

"*Spodoptera*" *pecten* of Guenée, although it closely resembles *S. mauritia* in colouring and general pattern, is structurally quite distinct, and must either be placed in or near to the genus *Agrotis*.

1. *Spodoptera mauritia*.

- ♀, *Hadena mauritia*, Boisduval, Faune, Ent. de Madag., p. 92, pl. 13, fig. 9 (1833).
 ♂, *Spodoptera nubes*, Guenée, Noct., i., p. 155, n. 246 (1852).
 ♀, *S. filum*, Guenée, l. c., n. 248 (1852).
 ♀, *Prodenia infecta*, Walker, Lep. Het., ix., p. 196, n. 12 (1856).
 ♂, *P. insignata*, Walker, l. c., p. 197, n. 14 (1856).
 ♀, *Caradrina triturrata*, Walker, l. c., x., p. 295, n. 30 (1856).
 ♀, *Agrotis transducta*, Walker, l. c., p. 344, n. 91 (1856).
 ♂, *Prodenia permunda*, Walker, l. c., xi., p. 723 (1857).
 ♀, *Laphygma gratiosa*, Walker, l. c., Suppl., ii., p. 651 (1865).
 ♂, *L. squalida*, Walker, l. c., p. 652 (1865).
 ♂, *Prodenia venustula*, Walker, l. c., p. 654 (1865).
 ♂, *Celæna bisignata*, Walker, l. c., p. 679 (1865).
 ♀, *Agrotis aliena*, Walker, l. c., p. 694 (1865).
 ♀, *A. bisignata*, Walker, l. c., p. 702 (1865).
 ♂, *Hadena obliqua*, Walker, l. c., iii., p. 736 (1865).
 Africa, Asia, and Australia. Coll. B. M.

It is remarkable, considering what a number of

species this insect was divided into, how little, comparatively, it varies; the sexes differ considerably, owing to the obliteration of the white markings in the female, but otherwise there is nothing beyond intensity of colour to account for the manifold synonymy noted above.

2 *Spodoptera exempta*.

♂, *Agrotis exempta*, Walker, Lep. Het., x., p. 355, n. 114 (1856).

♀, *Prodenia bipars*, Walker, l. c., xi., p. 724 (1857).

♂, *P. ingloria*, Walker, l. c., xv., p. 1679 (1858).

Africa, Australia, and Hawaiian Islands. Coll. B. M.

3. *Spodoptera frugiperda*.

♂, ♀, *Phalæna frugiperda*, Smith & Abbot, Lep. Georg., ii., p. 191, pl. 96 (1797).

♂, *Prodenia signifera*, Walker, Lep. Het., ix., p. 193, n. 5 (1856).

♂, *P. plagiata*, Walker, l. c., p. 194, n. 6 (1856).

North and South America. Coll. B. M.

This is also *P. autumnalis* of Riley.

PRODENIA, Guenée.

This genus differs from *Spodoptera* in the fact that the antennæ of the males are very delicately ciliated, especially towards the base, and in the much greater similarity of the sexes.

1. *Prodenia littoralis*.

Hadena littoralis, Boisduval, Faune Ent. de Madag., p. 91, pl. 13, fig. 8 (1833).

♂, ♀, *Noctua retina*, Freyer, Neuere Beiträge, v., p. 161, n. 865, pl. 478, figs. 2, 3 (1845).

♂, ♀, *Prodenia ciligera*, Guenée, Noct., i., p. 164, n. 260 (1852).

♀, *P. testaceoides*, Guenée, l. c., p. 165, n. 262 (1852).

♂, *P. subterminalis*, Walker, l. c., p. 196, n. 13 (1856).

♂, *P. glaucistriga*, Walker, l. c., p. 197, n. 15 (1856).

♂, *P. declinata*, Walker, l. c., xi., p. 723 (1857).

Africa, Asia, Australia. Coll. B. M.

P. testaceoides is a slight variety, and *P. declinata* a starved specimen.

2. *Prodenia ornithogalli*.

Prodenia ornithogalli, Guenée, Noct., i., p. 163, n. 258 (1852).

United States. Coll. B. M.

This is *P. lineatella*, Harvey, and *P. commelinæ*, Riley: I believe the following form to be only a variety, corresponding with the var. *testaceoides* of *P. littoralis*.

2a. *Prodenia eudiopta*.

Prodenia eudiopta, Guenée, Noct., i., p. 164, n. 261 (1852).

United States. Coll. B. M.

This is *P. flavimedia*, Harvey.

P. ornithogalli is the American representative of *P. littoralis*; the two forms are extremely closely allied, but that of the New World is constantly of a more uniform dark sepia-brown tint, upon which the markings stand out more sharply; the oblique dash at the end of the cell also appears to be shorter.

3. *Prodenia commelinæ*.

Phalæna commelinæ, Smith & Abbot, Lep. Ins. Georgia, ii., p. 189, pl. 95 (1797).

P.-Noctua marmorea, Sepp, Surin. Vlind. i., pl. 51.

North and South America. Coll. B. M.

LAPHYGMA, Guén.

1. *Laphygma exigua*.

Noctua exigua, Hübner, Samml. Eur. Schmett., Noct., fig. 362.

♂, *Caradrina venosa*, Butler, Ent. Month. Mag., xvii., p. 7 (1880).

Var. *Laphygma cycloides*, Guenée, Noct., i., p. 157, n. 250 (1852).

L.? *caradrinoides*, Walker, Lep. Het., ix., p. 190, n. 8 (1856).

L. flavimaculata, Harvey (see Grote, Check List, under *Caradrina*, p. 30, n. 651).

Europe, Asia, Africa, N. America, and Honolulu. Coll. B. M.

Walker identified two normal specimens from the Cape as "*L. cycloides*," but redescribed typical *L. cycloides* (which agrees with *L. flavimaculata* in being a little larger than most European examples) as *L. caradrioides*.

2. *Laphygma orbicularis*.

Caradrina orbicularis, Walker, Lep. Het., x., p. 294, n. 26 (1856).

C. præterita, Walker, *l. c.*, n. 27 (1856).

South Africa. Coll. B. M.

3. *Laphygma macra*.

Laphygma macra, Guenée, Noct., i. p. 157, n. 251 (1852).

L. ? inepta, Walker, Lep. Het., ix., p. 190, n. 6 (1856).

North and South America. Coll. B. M.

4. *Laphygma cilium*.

Spodoptera cilium, Guenée, Noct., i., p. 156, n. 249 (1852).

S. insulsa, Walker, Lep. Het., Suppl., 2, p. 648 (1865).

Java. Coll. B. M.

"*Spodoptera*" *erica*, Butl., belongs to the same genus.

EULAPHYGMA, gen. nov.

Differs in the ciliated antennæ of the male.

Eulaphygma abyssinia.

Spodoptera abyssinia, Guenée, Noct., i., p. 154, n. 244 (1852).

S. capicolu, Herrich-Schäffer, Lép. Exot., fig. 131 (1854).

Caradrina insignata, Walker, Lep. Het., x., p. 295, n. 29 (1856).

Laphygma procedens, Walker, Lep. Het., xi., p. 721 (1857).

South and West Africa. Coll. B. M.

I have no doubt that this wide-ranging species is the *S. abyssinia* of Guenée: it is astonishing that, when making three genera, this author failed to see how to

separate them correctly. All the species of *Laphygma* are so much alike that, unless examined with a lens in detail, they might be taken for one species; yet Guenée placed *L. cilium* and *E. abyssinia* into his genus *Spodoptera*, the species of which are far more like those of *Prodenia*.

CARADRINA, Ochs.

1. *Caradrina extima*.

Caradrina extima, Walker, Lep. Het., Suppl., 2. p. 687 (1865).

C. fidicularia, Morrison (see Grote. Check List, p. 30, n. 650).

Vancouver, California. Coll. B. M.

Specimens of this species in the Grote series are labelled as "*Caradrina multifera*," Walk.

2. *Caradrina quadripunctata*.

Noctua quadripunctata, Fabricius, Sp. Ins., ii., p. 214, n. 25.

Caradrina pulverosa, Walker, Lep. Het., x., p. 295, n. 28 (1856).

Europe and S. Africa. Coll. B. M.

3. *Caradrina selini*.

Caradrina selini, Boisduval, Ind. Méth., p. 137, n. 1096.

Europe. Coll. B. M.

Staudinger, in his Catalogue, p. 111, queries *C. noctivaga* as a variety of *C. selini*, and places *C. infusca* under it as a scarcely distinguishable slightly paler variety of *C. noctivaga*. In the Zeller collection I found the ordinary female of *C. selini*, which sex is always darker than the male, labelled as *C. infusca*: it is quite likely, therefore, that *C. noctivaga* and *infusca* are only ordinary females of *C. selini*, the sex having been not looked into.

4. *Caradrina himaleyica*.

Caradrina himaleyica, Kollar, Hügel's Kashmir, 4, p. 479 (1842).

C. arenacea, Moore, Proc. Zool. Soc., 1881, p. 349.

Dharmasala. Coll. B. M.

5. *Caradrina lenta*.

Caradrina lenta, Treitschke, Schmett. Eur., ii., p. 257.

C. tarda, Guenée, Noct., i., p. 243, n. 389 (1852).

Europe and N. America. Coll. B. M.

HYDRILLA, *Boisd.*1. *Hydrilla lepigone*.

Caradrina lepigone, Möeschler, Wien. Ent. Monatschr.,
1860, p. 273.

C. miranda, Grote (see Check List, p. 30, n. 647).

Europe and United States. Coll. B. M.

HYPPA, *Dup.*1. *Hyppa xylinoides*.

Hadena xylinoides, Guenée, Noct., ii., p. 106, n. 825
(1852).

Xylina contraria, Walker, Lep. Het., xi., p. 627, n. 10
(1857).

United States. Coll. B. M.

MISELIA, *Guén.*1. *Miselia extensa*.

♀, *Belostieta extensa*, Butler, Ann. & Mag. Nat. Hist.,
5th ser., vol. 4, p. 357 (1879).

♂, *Miselia cinerea*, Butler, Trans. Ent. Soc. Lond.,
1881, p. 184.

Japan. Coll. B. M.

MEGANEPHRIA, *Hübner*.

The type of this genus is the so-called "*Miselia*"
bimaculosa, which differs from *M. oxyacanthæ* in the
non-serrated character of its antennæ.

1. *Meganephria latex*.

Aplecta latex, Guenée, Noct., ii., p. 78, n. 771 (1852).

Apamea demissa, Walker, Lep. Het., xi., p. 728 (1857).

United States. Coll. B. M.

APLECTA, Guén.

Mamestra stoliczkae of Moore must be referred to this genus: in form it agrees best with *A. beanii*, Grote.

PACHETRA, Guén.

Pachypolia Polia and *Dryobota* (part), Grote.

1. *Pachetra illocata*.

Hadena illocata, Walker, Lep. Het., xi, p. 758 (1857).
Eurois pluviosa, Walker, l. c., Suppl., 3, p. 725 (1865).
Dryobota stigmata, Grote (see Check List, p. 28, n. 535).
 United States. Coll. B. M.

LAMPROSTICTA, Hübn.

Chariptera, Guén.

1. *Lamprosticta viridana*.

Phalæna viridana, Walch, Naturf., xiii., p. 28, pl. iii.,
 figs. 5, a, b (1779).
Mamestra adjuncta, Walker (not Guenée), Lep. Het.,
 xi., p. 726 (1857).
 Europe. Coll. B. M.
 Mr. Moore's genus *Karana* should be placed here.

DICHONIA, Hübn.

D. convergens does not differ from *Mamestra*: *D. æruginea* therefore becomes the type of *Dichonia*. Walker founded a genus *Horma* for *D. æruginea*, but the specimens from which he described his genus were not what he supposed, but identical with *Derthisa scoriacea*, so that *Horma* must be suppressed.

EUMICHTIS, Hübn.

1. *Eumichtis plena*.

♂, *Erana plena*, Walker, Lep. Het., Suppl., 3, p. 744
 (1865).
 ♀, *Dianthæcia viridis*, Butler, Cist. Ent., ii., p. 547
 (1880).
 New Zealand. Coll. B. M.

DARGIDA, *Walk.**Eupsephopæctes*, Grote.1. *Dargida graminivora*.*Dargida grammivora*, Walker, Lep. Het., ix., p. 202, n. 1 (1856).

Venezuela, Brazil. Coll. B. M.

This species, which is very closely allied to *D. pro-cinctus*, Grote, is labelled, on Zeller's example, "*Noctua graminivora*, Moritz." Walker evidently misread the name received with the Museum specimens, which he quotes, "*grammivora*, Morritz [sic] MSS." The name "*grammivora*" is not only hybrid, but conveys no meaning; therefore I propose to restore the original reading to the species.

2. *Dargida graminicolans*.*Dianthæcia graminicolans* [sic], Butler, Ann. & Mag. Nat. Hist., ser. 5, vol. 4, p. 295, n. 50 (1878).

Madagascar. Coll. B. M.

PSEUDEPUNDA, gen. nov.

Wings broader than in *Epunda*, the primaries more triangular, the antennæ simple and tapering instead of denticulated and ciliated.

Type. *Epunda bicolor*, Moore, from India.

SYNVALERIA, gen. nov.

Differs from *Valeria* in the submoniliform, somewhat flattened, antennæ of the male, no pectinations being present.

Type. *Valeria jaspidea*, Vill., from Europe.

I now return to *Mamestra*, to which I have to add some synonyms discovered since the publication of my last paper: naturally, as I have proceeded with the *Noctuæ*, I have seen cause to modify the arrangement of the genera, and doubtless many changes will yet have to be made before anything approaching to a natural classification can be obtained. One thing seems clear—that the numerous families made for the earlier groups are totally untenable.

MAMESTRA, Ochs.

1. *Mamestra binotata*.

Mamestra binotata, Walker, Lep. Het., Suppl., 2, p. 663 (1865).

Hadena extersa, Walker, l. c., 3, p. 728 (1865).

H. curvata, Grote = *pavica*, Behr. (see Grote, Check List, p. 27, n. 450).

United States. Coll. B. M.

2. *Mamestra inducta*.

Mamestra inducta, Walker, Lep. Het., ix., p. 236, n. 32 (1856).

M. septentrionalis, Walker, l. c., Suppl., 2, p. 660 (1865).

Venezuela and United States. Coll. B. M.

This is labelled *M. lycarum*, H.-Sch., on Grote's specimens.

The *Mamestra insulsa* of Walker is an *Agrotis* allied to *A. albipennis* (males, having white secondaries, stood without a name in the Grote collection): *M. expulsa*, Walker, is another closely allied species.

Mamestra nitida, Walker, is a distorted female of *Agrotis spina*, Guén., without secondaries.

Mamestra punctigera ♂, Walk., is the male of *Agrotis pastoralis* ♀, Grote.

Mr. Barrett pointed out to me that Walker's *Mamestra configurata*, from Mexico, is a slight variety of *M. brassicæ*.

HADENA (typical), Guén.

I only regard this as a group of *Mamestra*.

Hadena albifusa, Walk., represents *H. trifolii* in the United States, and may not be constantly different; in our examples the primaries are far less uniformly coloured, the usual markings being defined upon a paler ground colour.

The following species referred to *Hadena* are synonymous:—

Hadena detracta, Walk. (*Mamestra claviplena*, Grote), which appears to me to be a *Pachnobia*.

Hadena sputatrix, Grote = *Apamea*? *insignata*, Walk.

Hadena aspera, Walker, subsequently described as *Xylina provida* and *X. caulescens*, Walk.

Hadena olivacea, Moore, is a synonym of *H. megastigma*, Walk., and belongs to the genus *Trachea*.

Hadena algeus, Grote, appears to me to be a *Calathusa*, and *H. cylindrica* a *Bryophila*.

HOMOHADENA, Grote.

1. *Homohadena infixa*.

Xylophasia infixa, Walker, Lep. Het., ix., p. 178, n. 18 (1856).

Homohadena induta, Harvey (see Grote's Check List, p. 28, n. 198).

United States. Coll. B. M.

EUPLEXIA, Steph.

1. *Euplexia semifascia*.

Hadena semifascia, Walk., Lep. Het., Suppl., 3, p. 737 (1865).

Euplexia cuprea, Moore, Proc. Zool. Soc., 1874, p. 578.

India. Coll. B. M.

2. *Euplexia confundens*.

Euplexia confundens, Walker, Lep. Het., xi., p. 544, n. 3 (1857).

E. exclusa, Walker, *l. c.*, p. 545, n. 4 (1857).

E. indocilis (part), Walker, *l. c.*, n. 5 (1857).

Hadena familiaris, Walker, *l. c.*, p. 597, n. 91 (1857).

Var. *H. extima*, Walker, *l. c.*, p. 599, n. 96 (1857).

H. punctisigna, Walker, *l. c.*, p. 600, n. 97 (1857).

Tasmania, Australia. Coll. B. M.

From the fact that Walker named this species six times in one volume, it might be supposed that it was very variable. It varies only in depth of colour, the pattern being almost identical throughout. The variety *extima* is the most distinct, and, if proved to be locally constant, might be kept separate.

3. *Euplexia sepultrix*.

Mamestra sepultrix, Guenée, Noct., i., p. 200, n. 317 (1852).

Hadena expulsa, Guenée, l. c., 2, p. 93, n. 800 (1852).

Euplexia emergens, Walker, Lep. Het., xi., p. 544, n. 2 (1857).

E. indocilis (part), Walker, l. c., p. 545, n. 5 (1857).

Hadena lutra, Walker, l. c., p. 598, n. 93 (1857).

Tasmania and Victoria. Coll. B. M.

This species varies a little, and much in the same manner as the preceding species, with which it might easily be confounded; the outline of the central band of the primaries, nevertheless, is very different, and the lines immediately beyond it are equidistant.

The following genus is extremely like *Euplexia*, some of the species differing chiefly in their pectinated antennæ, the pattern being almost exactly the same.

NYSSOCNEMIS, Led.

1. *Nyssonemmis insignis*.

Euplexia insignis, Walker, Lep. Het., Suppl., 3, p. 724 (1865).

Xylina turbida, Walker, l. c., p. 754 (1865).

Var. *Hadena skelloni*, Butler, Cist. Ent., ii., p. 547 (1880).

New Zealand. Coll. B. M.

H. skelloni must, I think, be a well-marked variety of this species, in which the large pale patches are wanting, and the ordinary pale lines are green: when examined with a lens the markings are seen to correspond exactly.

2. *Nyssonemmis lignifusca*.

♂, *Hadena lignifusca*, Walker, Lep. Het., xi., p. 603, n. 101 (1857).

♀, *H. debilis*, Butler, Proc. Zool. Soc., 1877, p. 385, pl. xlii., fig. 6.

Xylina spurcata, Walker, Lep. Het., xi., p. 631, n. 21 (1857).

Var. *X. vexata*, ♂, ♀, Walker, Lep. Het., Suppl. 3, p. 755 (1865).

Var. *Hadena mutans*, ♂, ♀, Walker, Lep. Het., xi., p. 602, n. 100 (1857).

Mamestra acceptrix, ♀, Felder, Reise der Novara, Lep. iv., pl. cix., fig. 19.

New Zealand. Coll. B. M.

This is a very common and variable species, some of the forms of which bear a considerable resemblance to *Euplexia sepultrix*.

The *Euplexia pectinata* of Warren, which closely resembles *E. alborittata*, Moore, belongs to this genus.

HABRYNTIS, Led.

H. v-brunneum, Grote, appears to me to be nothing more than a variety of *H. periculosa*, in which the central belt of the primaries is blacker.

CONSERVULA, Grote.

Conservula, Grote, Bull. Buff. Soc., ii., p. 17 (1874).

Appana, Moore, Proc. Zool. Soc., 1881, p. 355.

CELÆNA, Steph.

I cannot see any reason for distinguishing *Hydræcia* and *Helotropha* from this "genus." *Celæna* is very close to *Mamestra*, so much so that I find that *M. stricta* (= *cinnabarina*) and *M. olivacea* (which looks like a black form of the same thing) undoubtedly belong to *Celæna*, and are closely allied to *C. renigera*; on the other hand, *M. egens*, which I considered (Trans. Ent. Soc., 1889, p. 386, n. 7) to be identical with *M. stricta*, proves, upon a second examination by a better light, to be nearer to *M. strigilis*: Walker's type is much worn and rubbed, so that one might be excused for making it synonymous with almost any species of the same size; nevertheless, traces of the pattern can be seen with the help of a lens and bright sunlight.

Celæna appears to be a fairly natural group, but the structural distinctions between it and *Mamestra* are not apparent on the surface.

1. *Celæna renigera*.

Celæna renigera, Stephens, Ill. Brit. Haust., ii., p. 16 (1829).

C. herbimacula, Guenée, Noct., i., p. 223, n. 354 (1852).

♀, *C. infecta*, Walker, Lep. Het., x., p. 263, n. 9 (1856).

United States. Coll. B. M.

2. *Celæna leucostigma*.

Noctua leucostigma, Hübner, Samml. Eur. Schmett. Noct., pl. 80, fig. 375.

Var. *Cerastis levis*, Butler, Trans. Ent. Soc., 1881, p. 181.

Europe, Japan, and China. Coll. B. M.

The type of *C. levis* is an unusually large dark male, the markings upon which are ill-defined; there is, however, no question of its identity with this species. I can see no reason whatever for separating *C. leucostigma*, generically, from "*Mamestra*" *splendens* or "*Hydræcia*" *nictitans*.

NEPHELODES, Guén.

1. *Nephelodes minians*.

Nephelodes minians, Guenée, Noct., i., p. 130, n. 203 (1852).

Graphiphora expansa, Walker, Lep. Het., x., p. 399, n. 26 (1856).

United States. Coll. B. M.

Grote considers *N. violans* a variety of this species, and certainly there seems nothing beyond the greyer colour of the wings, due to the absence of red in the dark bands, upon which to separate it.

Var. *violans*.

Nephelodes violans, Guenée, Noct., i., p. 130, n. 204 (1852).

Graphiphora subdolens, Walker, Lep. Het., x., p. 405, n. 44 (1856).

United States. Coll. B. M.

"*Hadena*" *exornata*, Mœschl., seems to me to be a very closely allied species to the preceding.

BELLURA, Walker.

ARZAMA, Walk.

1. *Bellura gortynoides*.

♀, *Bellura gortynoides*, Walker, Lep. Het., Suppl., ii.,
p. 465 (1865).

♂, *Arzama densa*, Walker, *l. c.*, p. 645 (1865).

♀, *A. vulnifica*, Grote (see Check List, p. 29, n. 584).
United States (Georgia). Coll. B. M.

2. *Bellura obliqua*.

Edema? obliqua, Walker, Lep. Het., Suppl., 2, p. 428
(1865).

Sphida obliquata, Grote (see Check List, p. 29, n. 582).
Canada; New York. Coll. B. M.

I fail to see a sufficient reason for distinguishing this
species, generically, from the preceding.

GORTYNA, Ochs.

Judging from the perfect insects only, this genus
seems chiefly to differ from *Celena* in the greater
tendency of the species to become greasy, although
many of the forms have a very distinct aspect, and are
barely, if at all, separable from *Xanthia*; others, again
(*G. illoba*, *necopina*, *micacea*, *stramentosa*, *petasitis*,
and *nitela*), are extremely like *C. leucostigma* and allies.
It is difficult to know what to do with groups of this
kind, based, perhaps correctly, upon the mere clothing
of the thorax, or some such apparently trivial character;
they appear to be natural genera, and, therefore, I leave
them as I find them.

1. *Gortyna illoba*.

Agrotis illoba, Butler, Ann. & Mag. Nat. Hist., ser. 5,
vol. i., p. 162 (1878).

Graphiphora pacifica, Butler, *l. c.*, p. 165 (1878).

Japan. Coll. B. M.

The type of *A. illoba* is a very pale example from
Hakodatè.

2. *Gortyna micacea*.

Noctua micacea, Esper, Eur. Schmett., pl. 145, fig. 6.
Hydræcia immanis, Guenée, Noct., i., p. 128, n. 201
 (1852).

Apamea obliqua, Harvey (see Grote, Check List, p. 29,
 n. 560).

Europe, Japan, United States. Coll. B. M.

The Japanese and American examples are, as a rule, though not invariably, a little larger and darker than those from Europe.

Gortyna nebris, Guén., is considered by Grote to be a variety of *G. nitela*: this may be the case, although the latter resembles *G. petasitis*, and the former is more like *G. limpida*; but, if *Gortyna* is capable of so much variation, why is *G. harrisii* described as distinct from *G. rutila*, into which it grades almost insensibly (one of Grote's types agrees in all respects with that of M. Guenée, having whitish secondaries; whilst another is clearly the female of his *Ochria! sanzalita*, a very slight variety of *G. rutila*, not worth a name): the darkest examples, having brown secondaries, may, perhaps, stand as var. *harrisii*. The *G. rutila* of Grote's collection is not Guenée's species, but the female of *G. purpurifascia*, Grote.

XANTHIA, Ochs.

1. *Xanthia indirecta*.

Xanthia indirecta, Walker, Lep. Het., x., p. 468, n. 22
 (1856).

Scopelosoma græfiana, Grote (see Check List, p. 32,
 n. 753).

United States. Coll. B. M.

Staudinger, in his Catalogue, regards the *Noctua fulvago* of Linneus' 'Fauna Suecica' as the *Xanthia cerago* of Schiffermüller; he is certainly wrong, for the Linnean description proves it, without question, to be the *Euperia fulvago* of Haworth. It is described as "somewhat glaucous and pale, with ferruginous bands across the primaries; secondaries paler; under surface of palpi and abdomen fulvous, of the wings pale yellow."

CERAMICA, Guén.*

1. *Ceramica picta*.

Mamestra picta, Harris (see Grote's Check List, p. 26, n. 343).

Ceramica exusta, Guenée, Noct., i., p. 344, n. 574 (1852).

Mythimna contraria, Walker, Lep. Het., ix., p. 78, n. 10 (1856).

United States. Coll. B. M.

A specimen in the Zeller series is labelled, "*Hamulus*, Z. *Mamestra capucina splendens*, v. Müll." Whether either of these names is published, I do not know.

FAGITANA, Walk.

1. *Fagitana littera*.

Leucania littera, Guenée, Noct. i., p. 71, n. 89 (1852).

Fagitana lucidata, Walker, Lep. Het., Suppl., 2, p. 645 (1865).

United States. Coll. B. M.

2. *Fagitana v-album*.

Ceramica v-album, Guenée, Noct., i., p. 345, n. 577 (1852).

Apamea purpuripennis, Grote (see Check List, p. 29, n. 555).

United States. Coll. B. M.

PSEUDORTHOSIA, Grote.

1. *Pseudorthosia vetusta*.

Mythimna vetusta, Walker, Lep. Het., ix., p. 78, n. 12 (1856).

Pseudorthosia variabilis, Grote (see Check List, p. 31, n. 706).

United States. Coll. B. M.

* *C. ambusta* is more nearly allied to this genus than to *Cirrædia*, the palpi being very short and horizontal. It should form the type of an allied genus; the subcostal furca of the secondaries is longer, and its footstalk consequently shorter; the hind tibial spurs also differ. It may be called *Brachycosmia*.

The so-called "*Hiptelia*" *miniago* is the European representative of this species, and belongs to the same genus.

ENARGIA, Hübn.

1. *Enargia decolor*.

Mythimna decolor, Walker, Lep. Het., xv., p. 1658 (1858).

Var. *Cosmia infumata*, Grote (see Check List, p. 32, n. 735).

United States. Coll. B. M.

BRACHYXANTHIA, Butl.

*Gortyna inquæsit*a, Grote, belongs to this genus.

CIRRÆDIA, Guén.

C. xerampelina is the type: the structure of the palpi and entire pattern and coloration of *C. ambusta* are different, and will remove it from the neighbourhood of *C. xerampelina*.

CALYMNIA, Hübn.

The type of *Calymnia* is *C. trapezina*: the other species may be restored to their rightful genus, *Cosmia*; the latter name was erroneously applied by Lederer and Staudinger to a group of species, of which only two were included in *Cosmia* by Oechsenheimer (no type being indicated by him). M. Guenée distinctly indicated *C. affinis* as the type of *Cosmia*, and so it must remain.

PLASTENIS, Boisd.

1. *Plastenis retusa*.

Phalæna-Noctua retusa, Linneus, Faun. Suec., p. 321.

Cosmia curvata, Butler, Trans. Ent. Soc., 1886, p. 131.

Europe and Japan. Coll. B. M.

The Japanese specimens are slightly larger and darker than most European examples: when I named "*Cosmia curvata*," we had no European representative in the general collection. This was one of the many desiderata supplied by the Zeller collection.

MESOGONA, *Boisd.*1. *Mesogona tadata*.

♀, *Pseudoglaea tadata*, Grote (see Check List, p. 31, n. 709).

♂ ♂, *P. blanda* and *P. decepta*, Grote (*l. c.*, nn. 710, 11).
United States. Coll. B. M.

There are only three examples—none of them perfect, and two a good deal worn—to represent the three species upon which *Pseudoglaea* is based: as these three specimens vary less one from the other than our eight specimens of the nearly-allied *M. acetosellæ*, I have been reluctantly obliged to regard them as synonymous.

2. *Mesogona oxalina*.

Noctua oxalina, Hübner, Eur. Schmett. Noct., pl. 45, fig. 219.

Ipimorpha intexta, Harvey (see Grote's Check List, p. 32, note).

Europe and N. America. Coll. B. M.

ORTHOSIA, *Ochs.**Tæniocampa* (part), Guén.1. *Orthosia incerta*.

Noctua incerta, Hufnagel, Berl. Monats., iii., p. 298, n. 424 (1767).

Tæniocampa alia, Guenée, Noct., i., p. 352, n. 587 (1852).

Europe and United States. Coll. B. M.

This is the type of *Orthosia*, as restricted by Curtis.

GLÆA, *Hübner*.1. *Glaea vacciniæ*.

Phalæna-Noctua vacciniæ, Linnæus, Faun. Suec., p. 320.

Noctua spadicea (Schiff.), Hübner., fig. 179.

Var. *N. ligula*, Esper, Eur. Schmett., pl. 166, fig. 3.

Europe. Coll. B. M.

The describers of Exotic Lepidoptera frequently have to suffer from the bitter onslaught of men whose experience is limited to a study of the European and some-

times of the British fauna, these men complaining that the student of tropical forms makes too many species. As a matter of fact, no men are greater hair-splitters than purely European workers. The above is only one out of many instances in which one variable species has been laboriously sorted out into three. Formerly *N. ligula* was believed to be, in all probability, a variety of *N. spadicea*, Schiff.; but *N. vaccinii* was regarded as a very distinct species. In Walker's Catalogue (part x., p. 450) *N. ligula* stands as a recognised variety. Staudinger, on the other hand (Cat., pp. 118, 119), calls *spadicea* an aberration of *vaccinii*, but raises *ligula* to the rank of a species. Zeller, with his seventy specimens, showing every gradation between the three forms, was sadly bothered; so that he left a typical *N. ligula* amongst his examples of *G. vaccinii*, and divided the remainder somewhere in the middle, being evidently unable to find any constant character by which to distinguish them. Is it not a sense of their own shortcomings which makes the describers of European Lepidoptera so bitter against the students of exotic species?

ORRHODIA, Hübn.

As regards the European species, I restrict this genus to *O. erythrocephala*, *vau-punctatum*, and *daubei*, the male antennæ in all of which are ornamented with series of little tuft-like ciliations. *O. signata*, French, *decliva*, Grote, *ardescens*, Butl., *punctosa*, Walk., and *viatica*, Grote, must also be referred to the same genus.

An example of *O. signata* was labelled "*Glæa anchoceles*, Guén.," in the Grote collection; but the type of Guenée's species appears to me to be a female *Noctua* allied to *N. orbis*, Grote. Walker associated with it five other moths, representing three forms belonging to two different genera; of these the first three specimens were *Dyschorista cynica* and its variety *candens*, whilst the fourth and fifth were *Semiophora oriduca*.

1. *Orrhodia decliva*.

Orthosia decliva, Grote, on label (*Epiglæa*, in Check List, p. 32, n. 746).

Epiglæa deleta, Grote (*l. c.*, n. 747).

United States. Coll. B. M.

Beyond the fact that the type of *E. deleta* is rubbed and the fringes are wanting, which last fact gives a different outline to the wings, I cannot see how it is to be separated from *O. decliva*.

EPIGLÆA, Grote.

I believe *E. pastillicans*, Morr., to be a brightly coloured form of *E. tremula*, Harv.; the markings are identical in the two insects.

IPIMORPHA, Hübn.

1. *Ipimorpha subtusa*.

Noctua subtusa, Schiff., Wien. Verz., p. 88, n. 17.

Ipimorpha pleonectusa and *subvexa*, Grote (see Check List, p. 32, nn. 716, 717).

Europe and United States. Coll. B. M.

The type of *I. subvexa* is larger, and has the outer line rather more incurved than in any of our other examples; but in both of these characters we have a gradation to the smallest of European specimens. In a series of six specimens taken by Grote in Renfrew Co., Canada, there is one example smaller than some of those from Europe. The ground colour of the wings is most inconstant, one of the six specimens above referred to being darker and greyer than the greyest European specimens, the latter being of the same tint as the type of *I. subvexa*. Grote himself says of the latter, "It is possible that the southern form is only a variety of *Pleonectusa*"; and I am satisfied that the latter is identical with *I. subtusa*.

RADINACRA, Butl.

1. *Radinacra cinerascens*.

Cosmia cinerascens, Motschoulsky, Etudes, ix., p. 34 (1860).

Caradrina albosignata, var. *caca*, Oberthür, Etudes, 5th livr., p. 74 (1880).

Japan. Coll. B. M.

ANCHOCELIS, Guén.

Orthosia, Lederer & Staudinger.

Staudinger, strangely enough, regards *A. lunosa* as the type of *Anchocelis*; this is manifestly impossible, as

Guenée did not include the species in his genus when he described it. *A. litura* must be the type.

DYSCHORISTA, Led.

1. *Dyschorista cynica*.

Orthodes cynica, Guenée, Noct., i., p. 375, n. 627 (1852).

Var. *O. nimia*, Guenée, l. c., p. 376, n. 628 (1852).

Var. *O. candens*, Guenée, l. c., n. 629 (1852).

Orthosia tecta, Walker, Lep. Het., Suppl., 3, p. 714 (1865).

United States. Coll. B. M.

All the types of the above synonyms are in the Museum Collection, so that there can be no question about their identity as species.

2. *Dyschorista vecors*.

Orthodes vecors, Guenée, Noct., i., p. 376, n. 630 (1852).

O. enervis, Guenée, Noct., 3, p. 400 (1852).

O. griseocincta, Harvey (see Grote, Check List, p. 31, n. 660).

United States. Col. B. M.

There is no reason for adopting Guenée's unnecessary alteration of the name of this species.

3. *Dyschorista crenulata*.

Dyschorista crenulata, Butler, Ann. & Mag. Nat. Hist., ser. 6, vol. 6, p. 97 (1890).

Orthodes infirma (auct. nec Guenée).

United States. Coll. B. M.

As I have already pointed out, the *Orthodes infirma* of Guenée is a Brazilian species.

4. *Dyschorista curvirena*.

Orthodes curvirena, Guenée, Noct., i., p. 374, n. 625 (1852).

Orthosia spurcilinca, Walker, Lep. Het., xv., p. 1709 (1858).

Rio Janeiro and Venezuela. Coll. B. M.

This is such a characteristic common Brazilian species that it is impossible to mistake it for anything else.

EREMOBIA, Steph.

1. *Eremobia brevicornis*.

Xanthia brevicornis, Walker, Lep. Het., x., p. 466,
n. 18 (1856).

Eremobia virescens, Butler, Ann. & Mag. Nat. Hist.,
ser. 5, vol. 4, p. 243 (1879).

Congo and Madagascar. Coll. B. M.

Walker's type is so very much rubbed that, being placed far away from its natural position, it was easily overlooked; sufficient traces of the pattern still remain upon the primaries to render identification certain.

PERIGEIA, Guén.

1. *Perigea apameoides*.

Perigea apameoides (part), Guenée, Noct., i., p. 229,
n. 367 (1852).

P. ? indecisa, Walker, Lep. Het., xi., p. 733 (1857).

P. otiosa, Walker, l. c., xv., p. 1693 (1858).

P. paupera, Walker, l. c. (1858).

Xylina detrecta, Walker, l. c., Suppl., 3, p. 750 (1856).

Perigea fabrefacta, Morrison (see Grote's Check List,
p. 28, n. 480).

North and South America. Coll. B. M.

This may prove to grade into the following species:—

2. *Perigea conducta*.

Perigea apameoides (part), Guenée, Noct., i., p. 229,
n. 367 (1852).

Caradrina conducta, Walker, Lep. Het., x., p. 296,
n. 32 (1856).

Perigea centralis, Walker, l. c., xi., p. 734 (1857).

Celena serva, Walker, l. c., xv., p. 1689 (1858).

Hadena pauperata, Walker, l. c., p. 1727 (1858).

Perigea inexacta, Walker, l. c., Suppl., 2, p. 682 (1865).

P. canorufa, Walker, l. c., p. 683 (1865).

P. illecta, Walker, l. c., p. 684 (1865).

Hadena leonina, Walker, l. c., 3, p. 735 (1865).

H. spargens, Walker, l. c., p. 739 (1865).

H. conducta, Walker, l. c., p. 740 (1865).

Asia, Africa, and Australasia. Coll. B. M.

Guenée included both species under his *P. apameoides*; the description was evidently taken from an American example. but he noted a specimen as belonging to the East India Company, which he could not believe to be Indian. The specimen in question still retains Guenée's label: it is a *P. conducta* from Java.

3. *Perigea vecors*.

Perigea vecors, Guenée, Noct., i., p. 230, n. 371 (1852).
Apamea remissa, Walker, Lep. Het., xi., p. 729 (1857).
Mamestra demittens, Walker, l. c., xv., p. 1684 (1858).

North and South America. Coll. B. M.

Guenée's type is a damaged headless specimen. This species is also identical with *P. luxa*, Grote.

4. *Perigea punctifera*.

Celæna punctifera, Walker, Lep. Het., x., p. 263, n. 8 (1856).

♀, *C. semifusca* (as ♂), Walker, l. c., xi., p. 732 (1857).

United States, St. Domingo, and Jamaica. Coll. B. M.

5. *Perigea concisa*.

Laphygma concisa, Walker, Lep. Het., ix., p. 191, n. 10 (1856).

Perigea imbellis, Walker, l. c., xv., p. 1692 (1858).

St. Domingo. Coll. B. M.

6. *Perigea dolorosa*.

Mamestra dolorosa, Walker, Lep. Het., Suppl., 2, p. 667 (1865).

Hadena taprobanae, Felder, Reise der Nov. Lep., 4, pl. cx., fig. 3.

Ceylon and Fiji. Coll. B. M.

Felder's figure is much under-coloured: the primaries are very black, and the external border of the secondaries dark. The species approaches *P. albomaculata*, Moore, being intermediate between it and *P. conducta*.

7. *Perigea subornata*.

Perigea subornata, Walker, Lep. Het., Suppl., 2, p. 682 (1865).

Ochria niveopicta, Butler, Proc. Zool. Soc., 1878, p. 485, n. 78.

Jamaica. Coll. B. M.

Walker's type is a broken specimen without locality.

8. *Perigea decens*.

Perigea decens, Walker, Lep. Het., x., p. 276, n. 23 (1856).

Celæna prolifera, Walker, l. c., xi., p. 732 (1857).

Perigea punctosa, Walker, l. c., p. 734 (1857).

Apamea intermittens, Walker, l. c., xv., p. 1686 (1858).

St. Domingo. Coll. B. M.

9. *Perigea albigeræ*.

Perigea albigeræ, Guenée, Noct., i., p. 228, n. 364 (1852).

Hadena abida, Felder, Reise der Nov. Lep., 4, pl. cix., fig. 7.

Rio Janeiro. Coll. B. M.

10. *Perigea tepens*.

Celæna tepens, Walker, Lep. Het., x., p. 266, n. 17 (1856).

Perigea nigripalpis, Walker, l. c., p. 277, n. 25 (1856).

Venezuela. Coll. B. M.

11. *Perigea mobilis*.

Perigea mobilis, Walker, Lep. Het., x., p. 277, n. 24 (1856).

Celæna inclinata, Walker, l. c., xi., p. 732 (1857).

Perigea subaurata, Walker, l. c., Suppl., 2, p. 681 (1865).

St. Domingo, Honduras, Brazil. Coll. B. M.

Perigea albinasus, Walker, is a rubbed example of *Agrotis ignobilis*, Walk.; *Hadena albipalpis*, Walk., is

the same species: these may therefore be added to the synonymy of *A. ignobilis*.

P. niveirena is not a *Perigea*; it would be better placed in *Homohadena*.

CONDICA, Walk.

This is only a distinctly marked group of *Perigea*.

1. *Condica cupentia*.

Noctua cupentia, Cramer, Pap. Exot., iii., pl. cclii., fig. E (1782).

Condica palpalis, Walker, Lep. Het., ix., p. 240, n. 1 (1856).

N. America, St. Domingo, Jamaica. Coll. B. M.

Var. *C. epopea*.

Noctua epopea, Cramer, Pap. Exot., iii., pl. cclxxii., figs. G, H (1782).

"*Hadena*" *confederata*, Grote, on label (see Check List, p. 28, n. 478).

United States. Coll. B. M.

Var. *C. infelix*.

Perigea infelix, Guenée, Noct., i., p. 229, n. 368 (1852).

N. America and Callao. Coll. B. M.

Of the above three fairly well-defined forms of a very variable species, *C. cupentia* has the primaries silvery whitish, with dark brown markings; *C. epopea* has the silvery colouring stained with orange ferruginous, and *C. infelix* has the primaries suffused with brown.

AMYNA, Guenée.

1. *Amyna selenampha*.

Amyna selenampha, Guenée, Noct., i., p. 406, n. 378 (1852).

Var. *Alamis spoliata*, Walker, Lep. Het., xiii., p. 1050 n. 11 (1857).

Hadena latipennis, Walker, *l. c.*, Suppl., 3, p. 738 (1865).

Asia, Africa, and Australasia. Coll. B. M.

The variety twice named by Walker belongs to the

form without a white stigma: an example of the same form from Java was labelled by Guenée with a MS. name, but he evidently came to the conclusion afterwards that it was no more than a variety, and therefore refrained from publishing it.

ILATTIA, Walk.

Amyna (part), Guenée.

Stridora, Walker.

Chytoryza, Grote.

1. *Ilattia octo*.

Perigea octo, Guenée, Noct., i., p. 233, n. 377 (1852).

Poaphila stricta, Walker, Lep. Het., xiv., p. 1476, n. 21 (1857).

Ilattia cephusalis, Walker, l. c., xvi., p. 209 (1858).

Amyna undulifascia, Butler, Ann. & Mag. Nat. Hist., ser. 4, vol. xvi., p. 403 (1875).

Ilattia apicalis, Moore, Descr. Ind. Lep., Atk., ii., p. 112 (1882).

Perigea supplex, Swinhoe, Proc. Zool. Soc., 1885, p. 452.

Var. *axis*.

Amyna axis, Guenée, Noct., i., p. 407, n. 378, b (1852).

Celæna flavigutta, Walker, Lep. Het., xv., p. 1688 (1858).

C. ? perfundens, Walker, l. c., p. 1691 (1858).

Miana inornata, Walker, l. c., Suppl., 2, p. 677 (1865).

Erastria stigmatula, Snellen, Tijds. voor Ent., 15th Jahrg., p. 55, n. 44, pl. 4, fig. 14 (1872).

Stridora albigutta, Walker, Trans. Nat. Hist. Soc. Glasgow, i., p. 35, n. 41 (1873).

Amyna stellata, Butler, Ann. & Mag. Nat. Hist., ser. 5, vol. i., p. 162 (1878).

Chytoryza tecta, Grote (see Check List, p. 33, n. 811).

Asia, Africa, America, and Australasia. Coll. B. M.

It is quite impossible, with so large a series as we possess, to separate any of the numerous synonyms associated above; many of the descriptions were based upon single examples from widely distant localities; Guenée described his species from specimens received from Tahiti; we have examples from the Ellice, Gilbert and Marquesas Islands, the New Hebrides, Tonga, Fiji,

and Rockhampton, answering to both his descriptions: they are, as a rule, a little smaller than the majority of Indian examples, but one specimen from the New Hebrides is as large as the largest Indian specimens representing *I. apicalis*. *Perigea supplex* is like examples from Marquesas. Grote's *Chytoryza* agrees exactly with Solomon Island specimens.

It is quite possible that *I. cupreipennis* may be only a form of *I. octo*, but the figures of this and *I. cervina* are so unsatisfactory that they hinder rather than assist the identification of the species; figures of closely allied species with complicated markings need to be extremely carefully executed to be of the slightest use.

Mr. Tutt has called attention to an error in my previous paper, probably due to my being interrupted by some visitor whilst in the act of copying the synonymy from my rough notes. *Agrotis saucia* is not a synonym of *A. ypsilon*: therefore, the name "*ypsilon*" should be erased from the page and *A. saucia* substituted. As is well known, *A. suffusa* is the synonym of *A. ypsilon*: the error was purely a *lapsus calami*, as it did not extend to the arranged collection. In the other supposed mistakes, it is Mr. Tutt who is in error.